

CONTRACT DATA REQUIREMENTS LIST

(1 Data Item)

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0701-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to the above address. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. B. EXHIBIT C. CATEGORY:
TDP _____ TM _____ OTHER _____

D. SYSTEM/ITEM F100-PW-100/-200/-220/-229 Engines E. CONTRACT/PR NO. F. CONTRACTOR

1. DATA ITEM NO. A001 2. TITLE OF DATA ITEM Contractor's Configuration Management Plan 3. SUBTITLE Nsn-2840-00-331-5511 Noun: #2 Bearing Rear Scoop Pre-Production Plan

4. AUTHORITY (Data Acquisition Document No.) DI-CMAN-80858 / T 5. CONTRACT REFERENCE 6. REQUIRING OFFICE DSCR-JLTB

7. DD 250 REQ DS 9. DIST STATEMENT REQUIRED A 10. FREQUENCY 1Time 12. DATE OF FIRST SUBMISSION 30DAC 14. DISTRIBUTION a. ADDRESSEE b. COPIES Draft Reg Final Repro

16. REMARKS Nsn-2840-00-331-5511 Part# 4001857 (77445).

Block 4. Tailored:
The Contract Awardee shall provide a plan for approval that ensures all drawing and specification requirements are complied with prior to First Article sample manufacture. The plan shall include the "equipment and facilities" used to verify all drawing, specifications, and process requirements. As a minimum, the plan shall address the following criteria:

- (a). A list of all drawing dimensions, surface texture, etc..., to be inspected and the equipment to be used for verification of each dimension, surface texture, etc... An actual drawing(s) shall be submitted with the Plan that correlates the dimensions on the drawing(s) to those identified on the list.
- (b). A plan to verify that all non-destructive inspections are met.
- (c). A plan to verify that all visual inspection requirements are met.
- (d). A plan to verify material properties which shall include material properties, metallurgical properties, and chemical compositions.
- (e). A plan to ensure that all manufacturing processes are performed by the Original Equipment Manufacturer(OEM), Pratt and Whitney, certified vendors.
- (f). A plan to ensure that the forging / casting source is OEM approved for the specific forging / casting requirement, is applicable.
- (g). The Plan shall identify all external sources for applicable material and process requirements.
- (h). The Plan shall identify GFE, GFM, and Tooling requirements if applicable.
- (i). The Plan shall identify all aspects of Quality Assurance such as policies, organization, planning, procedures control, responsibilities, and interfaces including calibration, inspection and testing related criteria.
- (j). The Plan shall address the following critical characteristics; Sect B-B .120/.130 Dia (11 Holes) and .740/.730 Dim (11 Places) as well as Sect A-A This Dia must be CONC with Dia-A within .0005 FIR.

Block 7. The submitted "Pre-Production Plan" shall require approval.

Block 8. Plan approval shall be evaluated by DSCR-JLTB.

Distribution as follows: Copy of the contract shall be provided with the Plan to

1. Defense Supply Center Richmond(DSCR)
Attn: DSCR-JLPA-PIV
8000 Jefferson Davis Highway
Richmond, VA 23297-5878

G. PREPARED BY Joseph Lesyk H. DATE 04-10-2002 I. APPROVED BY Joseph Lesyk J. DATE 04-10-2002

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

INSTRUCTIONS FOR COMPLETING DD FORM 1423

(See DoD 5010.12-M for detailed instructions.)

FOR GOVERNMENT PERSONNEL

Item A. Self-explanatory.

Item B. Self-explanatory.

Item C. Mark (X) appropriate category: TDP - Technical Data Package; TM - Technical Manual; Other - other category of data, such as "Provisioning," "Configuration Management," etc.

Item D. Enter name of system/item being acquired that data will support.

Item E. Self-explanatory (to be filled in after contract award).

Item F. Self-explanatory (to be filled in after contract award).

Item G. Signature of preparer of CDRL.

Item H. Date CDRL was prepared.

Item I. Signature of CDRL approval authority.

Item J. Date CDRL was approved.

Item 1. See DoD FAR Supplement Subpart 4.71 for proper numbering.

Item 2. Enter title as it appears on data acquisition document cited in Item 4.

Item 3. Enter subtitle of data item for further definition of data item (optional entry).

Item 4. Enter Data Item Description (DID) number, military specification number, or military standard number listed in DoD 5010.12-L (AMSOL), or one-time DID number, that defines data content and format requirements.

Item 5. Enter reference to tasking in contract that generates requirement for the data item (e.g., Statement of Work paragraph number).

Item 6. Enter technical office responsible for ensuring adequacy of the data item.

Item 7. Specify requirement for inspection/acceptance of the data item by the Government.

Item 8. Specify requirement for approval of a draft before preparation of the final data item.

Item 9. For technical data, specify requirement for contractor to mark the appropriate distribution statement on the data (ref. DoDD 5230.24).

Item 10. Specify number of times data items are to be delivered.

Item 11. Specify as-of date of data item, when applicable.

Item 12. Specify when first submittal is required.

Item 13. Specify when subsequent submittals are required, when applicable.

Item 14. Enter addressees and number of draft/final copies to be delivered to each addressee. Explain reproducible copies in Item 16.

Item 15. Enter total number of draft/final copies to be delivered.

Item 16. Use for additional/clarifying information for Items 1 through 15. Examples are: Tailoring of documents cited in Item 4; Clarification of submittal dates in Items 12 and 13; Explanation of reproducible copies in Item 14.; Desired medium for delivery of the data item.

FOR THE CONTRACTOR

Item 17. Specify appropriate price group from one of the following groups of effort in developing estimated prices for each data item listed on the DD Form 1423.

a. Group I. Definition - Data which is not otherwise essential to the contractor's performance of the primary contracted effort (production, development, testing, and administration) but which is required by DD Form 1423.

Estimated Price - Costs to be included under Group I are those applicable to preparing and assembling the data item in conformance with Government requirements, and the administration and other expenses related to reproducing and delivering such data items to the Government.

b. Group II. Definition - Data which is essential to the performance of the primary contracted effort but the contractor is required to perform additional work to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, or quality of the data item.

Estimated Price - Costs to be included under Group II are those incurred over and above the cost of the essential data item without conforming to Government requirements, and the administrative and other expenses related to reproducing and delivering such data item to the Government.

c. Group III. Definition - Data which the contractor must develop for his internal use in performance of the primary contracted effort and does not require any substantial change to conform to Government requirements with regard to depth of content, format, frequency of submittal, preparation, control, and quality of the data item.

Estimated Price - Costs to be included under Group III are the administrative and other expenses related to reproducing and delivering such data item to the Government.

d. Group IV. Definition - Data which is developed by the contractor as part of his normal operating procedures and his effort in supplying these data to the Government is minimal.

Estimated Price - Group IV items should normally be shown on the DD Form 1423 at no cost.

Item 18. For each data item, enter an amount equal to that portion of the total price which is estimated to be attributable to the production or development for the Government of that item of data. These estimated data prices shall be developed only from those costs which will be incurred as a direct result of the requirement to supply the data, over and above those costs which would otherwise be incurred in performance of the contract if no data were required. The estimated data prices shall not include any amount for rights in data. The Government's right to use the data shall be governed by the pertinent provisions of the contract.

**QUALIFICATION REQUIREMENTS
FOR MANUFACTURE OF F100 ENGINE PARTS**

Page 1

P/N:
NSN:

Rev: 0
20-Dec-01

I. HARDWARE DESCRIPTION

A. Nomenclature:

B. Function:

C. Material Composition:

II. REFERENCE DOCUMENTS

A. LPF-QAR-004: "General Quality Assurance Requirements For F100 Engine Components."

III. JUSTIFICATION FOR QUALIFICATION REQUIREMENTS

Ref.: FAR Subpart 9.2, AFMCFAR Subpart 5309.2

The following paragraphs provide the justification for qualification requirements for this part.

A. Criticality of Part:

This is a Critical Application Item (CAI) used on the F-15 and F-16 aircraft primary propulsion system, the Pratt & Whitney F100 engine. Failure of this part can result in secondary damage to the engine and subsequent mission abort.

B. Complexity of Part:

This part is not complex to manufacture, however, it is used in a critical location and must therefore require strict process control and quality standards.

C. Government Risk:

The following paragraphs document the reasons why the risk to the government of buying this part from an unqualified source is compound.

1. The probability of an unqualified source producing an unsatisfactory part is moderate.
2. The probability of an unqualified source failing to produce within schedule is moderate.
3. A high potential exists for an unqualified source to underestimate the manufacturing difficulty and miss critical delivery schedules.
4. Untimely delivery critically impacts end item overhaul/repair schedules. Failure to deliver on schedule may result in additional high cost emergency procurements.

QUALIFICATION REQUIREMENTS
FOR MANUFACTURE OF F100 ENGINE PARTS

Page 2

P/N:
NSN:

Rev: 0
20-Dec-01

5. An inferior part can cause extensive damage to the end item resulting in a high cost of repair.
- D. There are no costs incurred by an offeror for qualification testing and testing evaluation under the requirements of paragraphs VI.A or VI.B. However, the offeror's development of a Source Approval Request (SAR) package to be submitted for Government evaluation may cost as much as \$2500. In addition, the cost incurred by offerors for Government evaluation of their SAR submitted under the requirements of paragraphs VI.A or VI.B may be as much as \$1,200. This cost may be borne by the Government if it is in the best interest of the Government to qualify alternate sources.

IV. JUSTIFICATION FOR QUALIFICATION PRIOR TO CONTRACT AWARD

Ref.: AFMCFAR Subpart 5309.2

The following paragraphs provide the rationale for requiring a demonstration of the qualification requirements prior to contract award.

- A. The risk of default by the contractor must be minimized as the shortest combined administrative and production lead-time is over 18 months.
- B. The technical risk must also be minimized due to the criticality of the part (Reference the section "Criticality of Part" in paragraph III.A).
- C. The manufacturing and processing techniques are critical to performance and reliability (Reference the section "Criticality of Part" in paragraph III.A).
- D. The risk to the government in determining a potential vendor's capability without an actual demonstration of that capability must be minimized. The expertise that is required to manufacture this part is not commonly available or easily obtained and therefore must be demonstrated. (Reference the section "Complexity of Part" in paragraph III.B).

V. DATA AND DOCUMENTATION REQUIREMENTS

The following paragraphs document the data that must be submitted with a request for source approval. All documentation submitted shall be the latest revision published. Documentation shall be bound (preferably a three ring binder) with a table of contents and corresponding sections tabbed.

- A. The potential Offeror must substantiate that they possess latest revision of the following data by providing a copy in the source approval package, or must provide DCAS or other government representative written verification that the potential vendor has the latest revision of the following data:
1. Drawing Number: (Including all sub-assembly or detail drawings specified on this drawing number)

**QUALIFICATION REQUIREMENTS
FOR MANUFACTURE OF F100 ENGINE PARTS**

Page 3

P/N:
NSN:

Rev: 0
20-Dec-01

2. No QAD for top level drawings. As applicable, include the QAD for each sub-assembly or detail part listed on the above drawing.
3. All applicable specifications called out on the drawing, and/or assembly and detail drawings, and on the QAD (as applicable). These include:
 - a) Process Specifications
 - b) Inspection Processes
 - c) Material Specifications
- B. The potential Offeror's Quality Assurance System must meet or exceed the requirements described in the attached document LPF-QAR-004.
- C. The vendor shall supply a list of all manufacturing and inspection processes that will be performed, both in-house or by sub-vendors. The vendor shall substantiate that sources to be employed for any significant process, including themselves, with the exception of conventional metal removal processes, are currently approved by Pratt & Whitney for the specific process required or another OEM for an equivalent process. The vendor must supply the name and address of each certified vendor to be used. In all cases where process approval is relative to an OEM process specification other than Pratt & Whitney, the vendor shall provide the complete specification and demonstrate the equivalence of the specifications.

VI. SUBSTANTIATION OF MANUFACTURING CAPABILITY

The following paragraphs document the methods to be used to substantiate a vendor's capability to manufacture this item.

- A. A vendor who has manufactured the item for the prime contractor or for other US DoD users of the same item within the last five years may be approved as a source for the part provided that the vendor was responsible for all material procurement, inspection, and finishing of the end item, i.e., the prime manufacturer did not add any value to the end item. The vendor must submit evidence of the scope of work for the part indicating that they had primary responsibility for all operations necessary for the completion of the part for delivery to the customer. This evidence shall include MANUFACTURING PROCESS SHEETS.
- B. Other vendors will be considered for approval on the basis of their ability to manufacture a similar item for the prime contractor, US DoD, or a NATO country. The following conditions must be met for approval by similarity:
 1. Submit evidence of the successful manufacture and sale of the similar item, to include purchase orders and shipping documents reflecting production quantities within the last five years. This evidence must document that the vendor had primary responsibility for all operations necessary to produce the similar item, and that the similar item was accepted by the customer. Also include a summary of quality deficiencies experienced within the last two years of production of the similar item(s) with coordination from the Q. A. manager.

**QUALIFICATION REQUIREMENTS
FOR MANUFACTURE OF F100 ENGINE PARTS**

Page 4

P/N:
NSN:


Rev: 0
20-Dec-01

The vendor shall provide SPECIFIC similarities and differences between the subject part and the similar part.

2. The vendor shall substantiate that the similar component(s) submitted will satisfy the following criteria:
 - a) Fabricated of the same alloy or an alloy from the same alloy family, e.g. Alpha Titanium's, Inconels, Austenitic Stainless Steels.
 - b) Illustrates the ability of the vendor, in conjunction with their sub-vendors, to perform all significant processes to be employed and maintain requisite tolerances and surface finish requirements.
 - c) The data must also show that the manufacturing and inspection/test processes for the similar part demonstrate the full range of difficulty required for the subject part. Included in this data shall be complete MANUFACTURING PROCESS SHEETS for the similar item.
3. A first article requirement may be included in any contract resulting from approval based upon similarity. The estimated cost of first article testing is \$1,500.00. These tests may include material properties analysis, dimensional analysis, and possibly rig test. At least three first articles would be required with one first article requiring destructive testing.

VII. RESPONSIBLE ENGINEERING ORGANIZATION

The responsible organization for establishing these qualification requirements is the F100 Engine Engineering Branch, within the Fighter Propulsion Division of the Oklahoma City Air Logistics Center, Tinker Air Force Base, Oklahoma.


GRIZELDA LOY-KRAFT, Chief
F100 Engineering Source Approval
Fighter Propulsion Division
Propulsion Directorate

*Expires in
7 years*

GENERAL QUALITY ASSURANCE REQUIREMENTS
FOR
F100 ENGINE COMPONENTS

Page 1
LPF-QAR-004
Rev: C
19 DEC 00

1 APPLICATION

These requirements apply to all F100 engine parts.

2 PURPOSE

This document establishes the minimum technical requirements that prospective sources must satisfy to obtain engineering approval of their quality system. All documentation provided as evidence of compliance with requirements specified herein must be in English. Engineering source approval shall be valid for five years from the date of the OC-ALC letter notifying the contractor of engineering source approval.

3 REQUIREMENTS

3.1 The Offeror must provide a Quality Assurance Manual that accurately portrays their current quality assurance system. The Quality Assurance System must meet or exceed the requirements as described in this document. Additionally, the Quality Assurance System must satisfy one of the following:

3.1.1 Certified to ISO 9002 by the American National Standards Institute (ANSI) or the International Standards Organization (ISO) in Geneva, Switzerland, or

3.1.2 Previously certified within the last three (3) years to MIL-I-45208A plus paragraphs 3.1 through 3.5, 5.1, 5.2, 6.1, and 6.2 of MIL-Q-9858A by the DCMC or other appropriate government Quality Assurance Representative, or

3.1.3 Approved by the Original Equipment Manufacturer (OEM).

3.2 Proof of certification/approval must be provided and must be dated within the last three (3) years. The decision to approve or disapprove the Quality Assurance System shall only be made after a thorough review of the Offeror's Quality Assurance Manual by the cognizant engineering authority, OC-ALC/LPFR.

3.3 Copies of the latest document(s) which describe and govern the quality assurance system in effect at the Offeror's facility(ies). If provided within the last year and no significant changes have been incorporated this requirement may be waived. However, OC-ALC/LPFR as the cognizant engineering activity for the F100 engine reserves the right to request an additional copy in the event the previous submittal cannot be located.

3.4 P&W documentation identifying the specific conditions/restrictions (i.e., specific P/Ns, components, processes, or material this status applies to, production testing required for material release, testing the LCS supplier is authorized to perform, etc.) imposed by P&W with regard to Laboratory Control at Source (LCS) Supplier status if Offeror is a P&W-approved LCS Supplier. The fact that a sub-vendor is a P&W LCS Supplier shall not relieve the Supplier of the responsibility of conducting follow-on quality assurance surveillance to ensure that sub-vendors are providing conforming material.

GENERAL QUALITY ASSURANCE REQUIREMENTS
FOR
F100 ENGINE COMPONENTS

Page 2
LPF-QAR-004
Rev: C
19 DEC 00

-
- 3.5 Evidence that the emphasis in quality assurance planning is placed upon controlling processes to preclude generation of non-conformance's and is supplemented by sufficient inspections or tests to assure effective process control.
- 3.6 Offeror procedures/specifications governing the control of significant processes proposed for use in the fabrication of the approval item for assuring that:
- 3.6.1 Only Purchaser approved sources are used for raw material, significant processes, and major sub-components and adequate consideration is given to a source's capability and performance prior to placing an order.
 - 3.6.2 The quality acceptance standards imposed in routine production acceptance both in-house and by sub-vendors are complete and approved by P&W and the test methods employed in routine production acceptance are sufficient to verify compliance with these standards.
 - 3.6.3 Fabrication performed in-house and by sub-vendors is accomplished in accordance with work instructions specified in manufacturing process sheets, schedules, and/or technical control plans which define the exact sequence of all production operations and all process variables and all critical parameters of manufacturing operations which may directly affect material structure, mechanical properties, surface finish and/or direction or lay of the cutting action. The procedure shall also assure that work instructions have been approved by the customer.
 - 3.6.4 All inspection of characteristics, which serves as the basis for final acceptance of a characteristic, including in-process inspections, are performed in accordance with work instructions specified in inspection method sheets which define all characteristics specified on the applicable P&W drawings and Quality Assurance Documents (QAD's), the classification of each characteristic, the Acceptable Quality Level (AQL) for each classification of characteristic, sample size, frequency of inspection, the specific inspection methodology to be utilized, and the required instrumentation. The procedure(s) shall also assure that all inspection method sheets have been approved by the customer.
 - 3.6.5 Specific Offeror audit procedures/guidelines which pertain to process and product audits performed both in-house and at sub-vendor facilities. These procedures shall, as a minimum assure:
 - 3.6.5.1 Strict adherence to the sequence, parameters, and all other significant process variables of manufacturing operations defined on manufacturing process sheets approved by the customer is maintained both in-house and at sub-vendors' facilities. Specific procedures for auditing and/or controlling requisite significant processes must be provided.
 - 3.6.5.2 Dedicated equipment is properly maintained and calibrated and is capable of adequately performing its intended application.
 - 3.6.5.3 General housekeeping and manufacturing practices employed do not adversely affect the quality of the end product.

GENERAL QUALITY ASSURANCE REQUIREMENTS
FOR
F100 ENGINE COMPONENTS

Page 3
LPF-QAR-004
Rev: C
19 DEC 00

-
- 3.6.5.4 Established process controls and production acceptance plans are providing products which conform to the Purchaser requirements.
- 3.6.6 Specific Offeror procedures for assuring that certificates of test or conformance provided by sub-vendors of raw material and significant processes are complete and supported by process data and numerical test results from an OEM-approved laboratory for the requisite testing, are representative of material received, and the material is in conformance with Purchaser requirements.
- 3.6.7 Adequate records are retained for documenting sub-vendor lists, sub-vendor quality ratings, layout inspection reports, all Purchaser and OEM approvals, component traceability, and objective evidence of conformance to product, process, and quality acceptance requirements; and are available to the Purchaser upon request.
- 3.6.8 Evidence of a system for controlling non-conforming material to ensure:
- 3.6.8.1 The classification of all non-conforming characteristics in terms of critical, major, and minor is approved by the Purchaser.
- 3.6.8.2 Final disposition of all non-conforming critical and major characteristics including rework and repair is approved by the Purchaser prior to implementation.
- 3.6.8.3 Effective control of non-conforming material at sub-vendor facilities.

----- **END OF DOCUMENT** -----